

To Anne Pavelka <APAVELKA.DEP-01-PO.DEP@dep.state.nj.us>, David Doyle <DDOYLE.DEP-01-PO.DEP@dep.state.nj.us>, Andy

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bcc

Subject ACO Findings

Dave, Anne, Andy & Barry:

Attached please find the findings prepared by DuPont for insertion into their ACO, currently being negotiated. Please let me know if you have any concerns as soon as you can (Tuesday at the latest....if possible).

Andy/Barry - Al informed me that EI-CA 725 & EI-CA 750 are positive for Chambers Works (I thought that you had retracted the positive determination for EI-CA 750 because of the confirmed Salem Canal Seep and the weak hydraulic control in the SW corner of the site) Please confirm. Thanks

Frank

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FINDINGS

- 1. The E. I. du Pont de Nemours and Company ("DuPont") Chambers Works Site is located on Rte. 130 Pennsville, also known as Block 301, Lots 1-5 and Block 185, Lot 1 on the tax maps of the Pennsville Township, Salem County (hereinafter "Site") which is the subject of this Administrative Consent Order.
- 2. DuPont is a Delaware Corporation with its corporate offices located at 1007 Market Street Wilmington, Delaware 19801
- 3. Chambers Works complex consists of 1455 acre current and former manufacturing, wetlands, streams, and undeveloped areas. Currently over 500 products are produced that include performance chemicals, aramids, fluorochemicals, and polymers. Historically, the Chambers Works site has been involved in the development of over 1,200 chemical products.

 4.
- On December 14, 1984, DuPont signed an Administrative Consent Order after reaching agreement with the Department (1984 Administrative Consent Order) for lining and/or elimination of all unlined process wastewater ditches, as well as certain basins located at the Site.
- 5. On February 8, 1988, DuPont and the Department executed an amendment to the Administrative Consent Order (1988 Amendment), which included the remediation of specific areas of concern including the closure of Basins A, B, and C.
- 6. DuPont completed the remediation requirements of the 1988 ACO as follows. The Remedial Action Report for the C Basin closure was approved by the Department on October 10, 1995. The Remedial Action Report for the A/B Basin closure was approved by the Department on June 26, 1997. The Remedial Action Report for the PWDS [spell out] was approved by the Department on December 2, 1997.
- 7. On September 29, 1988 the United States Environmental Protection Agency (USEPA) issued a permit to DuPont under authority of the Resource conservation and Recovery Act ("RCRA") of 1976 and the Hazardous and Solid Waste Amendments ("HSWA") of 1984 for operation of hazardous waste land disposal units located in Pennsville and Carney's Point Townships, Salem County, New Jersey (HSWA Permit) which required DuPont to, among other operational issues, "Determine the nature, extent and rate of migration of hazardous waste or hazardous constituents in soils, ground water, surface water, subsurface gas and/or air ant any solid waste management units (s) at the facility regardless of the time waste was placed in such a unit, and to develop appropriate corrective action for any such releases..."
- 8. On January 24, 2005, the Department issued a New Jersey Pollutant Discharge Elimination System (NJPDES) permit (Number: NJ0083429) to DuPont regulating discharges to groundwater (DGW) from certain units that include: 1. Waste Water Basin Complex, 2. Secure "C" Landfill and 3. RCRA Units (a. Thermal Decontamination Furnace FR-65, Lead Flue Dust Storage Area and Lead Furnace Slag, Freon Spent Catalyst Storage

Area, and Telomer "A" Waste Container Storage Area"). The permit, which supercedes previous NJPDES-DGW permits, requires operation of a groundwater interceptor well system at 1.5 mgd, ground water monitoring and inspection of certain units.

- 9. DuPont maintains stabilization of the site through the use of the Interceptor Well System (IWS) and the implementation of interim stabilization measures (ISMs). The IWS has operated since 1970 and is currently pumping and treating an average of 1.5 million gallons per day (1.5 mgd) of groundwater to achieve stabilization. Potentiometric contour maps, supplemented with modeling, have demonstrated that all of the impacted groundwater at Chambers Works is contained by the IWS in the C, D, and E Aquifers. Additional modeling has shown that the small percentage of impacted groundwater in the B Aquifer that migrates off-site does not pose an unacceptable risk to human health and the environment
- 10. In 1989, a draft RFI work plan was submitted to the USEPA and the Department as required by the HSWA Permit. The work plan was not implemented. In a July 1992 meeting with the USEPA, it was decided that DuPont would submit a Current Conditions Report in lieu of implementing the Draft RFI Work Plan.
- 11. On December 18 1992, DuPont submitted a Current Conditions Report to the USEPA. The primary purpose of this report was to summarize the existing data on the SWMUs and to present additional environmental information collected at the Chambers Works site since the draft RFI work plan was submitted in 1989.
- 12. On March 25, 1993, DuPont received comments on the Current Conditions Report from the USEPA and the Department. Included in the USEPA review was a request for a new RFI Phase I work plan.
- 13. On May 7, 1993, DuPont Chambers Works submitted an application to the USEPA for renewing its HSWA permit, six months prior to the November 7, 1993, expiration date. The Regional Administrator has not issued a new HSWA permit. Therefore, in accordance with 40 CRF 270.51, the 1988 HSWA permit remains in effect until a new permit is issued.
- 14. In June and August 1993 respectively, DuPont prepared a Phase I (June 1993) and IA (August 1993) RFI work plan, which USEPA conditionally approved in December 1993.
- 15. In May 1995, DuPont submitted the results of the Phase I RFI. The Phase I RFI report recommended the following activities for a Phase II RFI: a. Groundwater sampling to be more focused on the deeper aquifers b. Dense non-aqueous phase liquids (DNAPL) investigation focused in areas of potential migration as identified in the Phase I Investigation c. Investigation of 12 SWMUs
- 16. DuPont prepared a Phase II RFI Work Plan (May 1996) and a revised Phase II RFI Work Plan (November 1996).
 - 17. In 1997, USEPA and the Department approved the Revised Phase II Work Plan.

- 18. In October 1998, DuPont submitted the results of the Phase II RFI. The Phase II RFI report recommended the following activities for the Phase III RFI: a.B Aquifer Tidal Study, b. Continue investigation at three SWMUs, c. Characterization of five SWMUs.
- 19. In April 2000, DuPont prepared a Phase III RFI Work Plan and submitted subsequent correspondence addressing Agency comments.
- 20. In April 2001, USEPA and the Department approved the Phase III Work Plan. The Phase III RFI was implemented from May through September 2001.
- 21. In April 2002, DuPont submitted the results of the Phase III RFI. The Phase III RFI report recommended the following activities: a. Provide additional investigation of four SWMUs, b. Conduct ISMs at three SWMUs
- 22. On July 11 2002, DuPont issued a report completing an interim remedial measure of SWMU 5 and 43 which included sediment and soil removal, shoreline stabilization and placement of a physical barrier.
- 23. On October 10, 2002 the Department issued a conditional approval of the SWMU 5 and 43 Remedial Action Report issued on July 11, 2002
- 24. On October 28, 2002 the Department issued an "Area of Concern Restricted Use, No Further Action Letter and Covenant Not to Sue for 17 SWMUs at the site.
- 25. In 2003, DuPont prepared two work plans for Test Pit activities and Remedial Investigation activities at SWMU 8 (Landfill IV) and other units, and submitted subsequent correspondence addressing agency comments.
- 26. On March 22, 2004 DuPont submitted a Remedial Action Report for the Aramids Pond remedial action.
- 27. In June 2004 EPA determinated that Chambers Works met the Government Performance and Results Act criteria of CA 725 Environmental Indicator, current human exposures under control.
- 28. In July 2004, DuPont prepared a Remedial Action Selection Report (RASR) for proposed Interim Stabilization Measures (ISM) at SWMU 52. DuPont submitted subsequent correspondence addressing agency comments. SWMU 52 ISM conceptual design was updated at a meeting with the agency on February 15, 2005.
- 29. On August 12 2004, USEPA and the Department provided conditional acceptance of the Armids Pond Remedial Action report dated March 22, 2004.

- 30. In September, 2004 EPA determinated that Chambers Works met the Government Performance and Results Act criteria of CA 750 Environmental Indicator, migration of contaminated groundwater under control.
- 31. On April 6, 2005, the Department notified DuPont that an amendment to the 1988 Administrative Consent Order or a new oversight document which reflect new strategies for a site-wide remediation approach was necessary. DuPont was requested to address two issues raised by the Department: Long Term Remediation of the site and Discharge of Contaminated Ground Water and Surface Water to the Delaware River and its tributaries. On June 28, 2005, DuPont submitted to the USEPA and Department an Addendum to the July 2004 RASR for SWMU 52. The Addendum contained additional design data and proposed additional interim remedial action.
- 32. On June 28, 2005, DuPont proposed interim remedial measures to address contaminated groundwater and sediment in the Salem Canal at the site.
- 33. On July 1, 2005, in a response to the Department's April 6, 2005, notice, DuPont proposed a comprehensive plan to meet the Departments requirements that included provisions for a near term remedial actions and long term remediation of the site.
- 34. On June 30, 2005 DuPont and the Department entered into Compensatory Restoration Administrative Consent Order resolving certain claims by the Department as trustee for natural resources of the State (NRD Restoration Order), including claims by the Department for natural resource injuries related to ground water at the Site.
 - 35. [****need language to address the surface water and wetland issues****]
- 36. By entering this Administrative Consent Order, DuPont neither admits to any fact, fault or liability under any statute or regulation concerning the condition of the Site nor waives any rights or defenses with regard to the site except as specifically provided in this Administrative Consent Order.
- []. This Administrative Consent Order is, to the greatest extent possible, consistent with and complies with the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), 42 U.S.C. § 9601 et seq., and the National Oil and Hazardous Substance Pollution Contingency Plan (NCP), 40 C.F.R. Part 300. All activities undertaken by DuPont pursuant to this Administrative Consent Order shall be performed in accordance with the requirements of all applicable federal and state laws and regulations. DuPont must also comply with all applicable or relevant and appropriate requirements of all federal and state environmental laws as set forth in the attached Scope of Work. The activities conducted pursuant to this Administrative Consent Order, if approved by the Department, shall be considered to be consistent with the NCP.
- 37. The scope of the investigation and remediation required by this Administrative Consent Order will include all contaminants at the above referenced Site, and all contaminants, which are emanating from or which have emanated from the Site, consistent with the attached Scope of

Comment [TAE1]: Shouldn't this be part of the order?

Comment [TAE2]: Shouldn't this be part of the order?